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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,659	02/10/2006	Karl-Otto Platz	T4494-16124US01	7050
181 7590 12/28/2009 MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833			EXAMINER KWIECINSKI, RYAN D	
			ART UNIT 3635	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/535,659	Applicant(s) PLATZ, KARL-OTTO	
	Examiner RYAN D. KWIECINSKI	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 22 November 2002. It is noted, however, that applicant has not filed a certified copy of the DE 202 18 215.0 application as required by 35 U.S.C. 119(b).

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore:

- 1) **the hardened single glass plate of claim 20** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
- 2) **the PVB foil of claim 21** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

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consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- 1) **26** - Fig. 2
- 2) **26** - Fig. 4
- 3) **5** - Fig. 4
- 4) **7** - Fig. 4

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be

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notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

Page 7, Paragraph beginning with “Fig. 3 further differs” - The specification recites differences between Figure 1 and Figure 3, but those differences do not appear to be correct. The only noticeable difference between the two figures is the difference in the cover member 22.

Page 8, Paragraph beginning with “Different from the embodiments” – The paragraph fails to disclose what figure the description is referring to, this makes the description vague, indefinite, and confusing.

Appropriate correction is required.

Claim Objections

Claim 1 is objected to because of the following informalities:

Claim 1 recites the limitation "**the clamping force**" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 19-20, 22-24, 26-29, and 33-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,138,434 to Demars et al. in view of DE 199 58 879 A1 to Christof.

Claim 19:

Demars et al. disclose a glass structure for statically or dynamically loaded structures comprising at least one laminated glass pane (1, Fig.3a) and at least one clamping element (33, 34) by which the laminated glass pane can be fastened to a supporting structure (Column 4, lines 16-18), wherein the laminated glass pane comprises a statically and dynamically loadable supporting glass pane (5) and at least one cover glass pane (4) connected with the supporting glass pane, the clamping force

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for fastening the laminated glass pane being exerted by the at least one clamping element only on the supporting glass pane of the laminated glass pane.

Demars et al. do not specifically disclose wherein the glass panes are connected through a layer of resin nor do they disclose the cover glass pane being provided with electrically conductive transparent conductor paths.

Christof discloses wherein glass panes are connected through a layer of resin (3.3, Fig.2) and the glass pane being provided with electrically conductive transparent conductor paths (the wires connected from 9 to the solar panels 7, Fig.2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the glass structure of Demars with the glass layers connected through a layer of resin as taught by Christof. The layer of glass resin will add strength and durability to the glass structure. Materials such as polymeric films are used to create glass structures as safety glass panels etc. The resin layer will firmly secure the glass panes to one another as well as reinforce the glass structure.

It also would have been obvious to have formed the glass structure of Demars with conductor paths provided with the cover glass panel as taught by Christof. The conductor paths along the cover glass panel will provide the glass structure with a means to provide current throughout the glass structure to power lights, cells, and other electronically controlled loads. It is notoriously well known to provide laminated panels with lighting means, etc. The loads which will connect to the conductor paths can provide patterns, messages, etc. in the glass structure.

Claims 20, 22-24, 26-29, and 33-37:

Demars et al. in view of Christof disclose the structure of claim 19:

Regarding claim 20, Demars et al. disclose wherein the supporting glass pane is a hardened single glass pane (5).

Regarding claim 22, Christof also discloses wherein the cover glass pane comprises current loads (7) connected to the electrically conductive transparent conductor paths.

Regarding claim 23, Demars et al. disclose wherein the at least one clamping element has a flange portion (33) engaging behind the supporting glass pane.

Regarding claim 24, Demars et al. disclose wherein each clamping element is passed through a recess in the supporting glass pane (the portion of the hole 9 which passes through 5).

Regarding claim 26, Demars et al. disclose wherein the clamping element holds the supporting glass pane in an edge portion in which the cover glass pane recedes from the supporting glass pane (Fig.3a).

Regarding claim 27, Demars et al. disclose wherein only the cover glass pane is recessed in the edge portion (4 is recessed beyond the hole 9) of the laminated glass pane in the area of the clamping elements.

Regarding claim 28, Demars et al. disclose wherein the cover glass pane has a larger recess relative to the recess and the clamping elements (9 of pane 4 is larger than 9 of pane 5) adapted to be inserted through both recesses hold the supporting glass pane.

Regarding claim 29, Demars et al. disclose wherein the clamping elements terminate flush with the cover pane (top of 33 is flush with the top of 4).

Regarding claim 33, Christof also discloses wherein the at least one clamping element comprises current connection elements (9, Fig.2 protrudes out of the member 15) for current supply to the electrically conductive conductor paths of the cover glass pane.

Regarding claim 34, Christof also discloses wherein the current connection elements protrude from the portion of the clamping element facing the cover glass pane (the bottom of 15).

Regarding claim 35, Christof also discloses wherein the clamping element comprises a plurality of mutually insulated segments (the wires members 9 are mutually insulated and travel through the member 15) supplying a plurality of current connection elements with current or control signals.

Regarding claim 36, Demars et al. disclose wherein the clamping element comprises a screw thread (bottom of bolt 33) for fastening to the supporting structure.

Regarding claim 37, Demars et al. disclose wherein the at least one recess in the supporting glass pane comprises a beveled portion (portion adj. 46, Fig.3b) adapted to a conical portion of the clamping element.

Claims 21 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,138,434 to Demars et al. in view of DE 199 58 879 A1 to Christof in view of US 5,398,452 to Schilde et al.

Claim 21:

Demars et al. in view of Christof disclose the glass structure as defined in claim 19, but do not specifically disclose wherein the supporting glass pane is a composite glass laminate in PVB foil with a plurality of hardened or non-hardened single panes.

Schilde et al. disclose wherein a pane is a composite glass laminate in PVB foil (4) with a plurality of hardened or non-hardened single panes (2 and 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the supporting glass pane as a composite laminate with PVB foil and a plurality of single panes as taught by Schilde et al. in order to form a supporting glass pane which is strong, durable, and able to withstand the clamping force of the clamping element of the glass structure. Single glass panes laminated with PVB foil are known as laminated safety glass structures and are capable of withstanding large loads and deflecting strong forces. The composite laminate will add strength to the overall glass structure as well as seal the glass structure.

Claims 30 and 31:

Demars et al. in view of Christof disclose the glass structure as defined in claims 28 and 29, Demars et al. discloses wherein the gap is sealed with aluminum washers, but do not specifically disclose wherein the gap between the clamping element and the cover glass pane is sealed with plastic material.

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Schilde et al. disclose wherein the gap between the clamping element and the cover glass pane is sealed with plastic material (20, Fig.1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the glass structure of Demars et al. and sealed the gap between the cover glass pane and the clamping element with a plastic material as taught by Schilde et al. The plastic material will secure the clamping element to the cover glass pane and also ensure that the glass structure assembly is sealed. The plastic material allows for slight deformations due to forces, atmospheric changes, etc. which will prevent the glass structure from forming cracks around the clamping element.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,138,434 to Demars et al. in view of DE 199 58 879 A1 to Christof in view of 2005/0238857 A1 to Day.

Claim 32:

Demars et al. in view of Christof disclose the glass structure as defined in claim 22, but do not disclose wherein the current load is a plurality of light emitting diodes emitting light to one or both sides.

Day discloses wherein the current load is a plurality of light emitting diodes (2, Fig.1) emitting light to one or both sides.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the glass structure of Demars et al. with LEDs

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provided with the cover glass panel as taught by Day. The conductor paths along the cover glass panel will provide the glass structure with a means to provide current throughout the glass structure to power LEDs. It is notoriously well known to provide laminated panels with lighting means, etc. The LEDs which will connect to the conductor paths can provide patterns, messages, etc. in the glass structure.

Claims 19 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,793,112 to Sufke in view of DE 199 58 879 A1 to Christof.

Claim 19:

Sufke discloses a glass structure for statically or dynamically loaded structures comprising at least one laminated glass pane (1,2, Fig.1) and at least one clamping element (8) by which the laminated glass pane can be fastened to a supporting structure (13), wherein the laminated glass pane comprises a statically and dynamically loadable supporting glass pane (1) and at least one cover glass pane (2) connected with the supporting glass pane through a layer of cast resin (3), the clamping force for fastening the laminated glass pane being exerted by the at least one clamping element only on the supporting glass pane (1) of the laminated glass pane.

Sufke does not disclose the cover glass pane being provided with electrically conductive transparent conductor paths.

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Christof discloses wherein the glass pane being provided with electrically conductive transparent conductor paths (the wires connected from 9 to the solar panels 7, Fig.2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the glass structure of Sufke with conductor paths provided with the cover glass panel as taught by Christof. The conductor paths along the cover glass panel will provide the glass structure with a means to provide current throughout the glass structure to power lights, cells, and other electronically controlled loads. It is notoriously well known to provide laminated panels with lighting means, etc. The loads which will connect to the conductor paths can provide patterns, messages, etc. in the glass structure.

Claim 24:

Sufke in view of Christof discloses the glass structure as defined in claim 19, Sufke also discloses wherein each clamping element is passed through a recess (5) in the supporting glass pane.

Claim 25:

Sufke in view of Christof discloses the glass structure as defined in claim 24, Sufke also discloses wherein the at least one clamping element is integrated in the laminated glass pane (8, Fig.1), the cover glass pane covering the entire surface (2 covers the entire surface) of the laminated glass panel.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. KWIECINSKI whose telephone number is (571)272-5160. The examiner can normally be reached on Monday - Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basil Katcheves can be reached on (571)272-6846. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RDK
/Ryan D Kwiecinski/
Examiner, Art Unit 3635
/Basil Katcheves/
Primary Examiner, Art Unit 3635